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Claims

1. Use of a compound of Formula I or a pharmaceutically acceptable salt thereof for the manufacture of a pharmaceutical composition for the inhibition or reduction of angiogenesis in a mammal:

$$\begin{array}{c|c}
R^1 & R^2 \\
\hline
R^1 & R^3 \\
\hline
 & O \\
\end{array}$$

wherein:

A is selected from the group consisting of the group members C_{1-10} -alkylene, C_{2-10} -alkenylene, and C_{2-10} -alkinylene, which group members may be optionally substituted by one, two or three groups independently selected from C_{1-3} -alkyl, fluoro, chloro, and bromo;

 R^1 is selected from hydrogen, C_{1-6} -alkyl, fluoro, chloro, bromo, and perfluoro- C_{1-3} -alkyl;

 \mathbb{R}^2 is selected from hydrogen, \mathbb{C}_{1-6} -alkyl, and \mathbb{C}_{2-6} -alkenyl;

R³ is selected from the group consisting of the group members C_{1-6} -alkyl, $(C_{5-8}$ -cycloalkyl)- C_{1-6} -alkyl, $(C_{5-8}$ -heterocyclyl)- C_{1-6} -alkyl, C_{1-6} -alkyl- $(C_{5-8}$ -heterocyclyl)- C_{1-6} -alkyl, and C_{1-5} -alkylcarbonyl- $(C_{5-8}$ -heterocyclyl)- C_{1-6} -alkyl, which group members may be optionally substituted by one, two or three groups independently selected from C_{1-6} -alkyl, fluoro, chloro, bromo, oxo, perfluoro- C_{1-3} -alkyl, aryl, arylcarbonyl,

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heteroaryl, heteroarylcarbonyl, C_{5-8} -cycloalkyl and C_{5-8} -heterocyclyl.

- 2. Use according to claim 1, wherein A is selected from ethylene, n-propylene, i-propylene, n-butylene, ethenylene, 1-propenylene, 1-butenylene, 2-butenylene, and ethinylene.
- 3. Use according to claim 1 or 2, wherein R¹ is selected from hydrogen, methyl, ethyl, n-propyl, fluoro, and trifluoromethyl.
- 4. Use according to any of claims 1 to 3, wherein \mathbb{R}^2 is selected from hydrogen, methyl, ethyl, n-propyl, and ethenyl.
- 5. Use according to any of claims 1 to 4, wherein \mathbb{R}^3 is selected from the group consisting of the group members cyclopentyl- C_{1-6} -alkyl, cyclohexyl- C_{1-6} -alkyl, pyrrolidinyl- C_{1-6} -alkyl, piperidinyl- C_{1-6} -alkyl, C_{1-6} -alkyl-piperidinyl- C_{1-6} -alkyl, C_{1-5} -alkylcarbonyl-piperidinyl- C_{1-6} -alkyl, piperazinyl- C_{1-6} -alkyl, C_{1-6} -alkyl-piperazinyl- C_{1-6} -alkyl, C_{1-5} -alkylcarbonyl-piperazinyl- C_{1-6} -alkyl, and morpholinyl- C_{1-6} -alkyl, which members may be optionally substituted by one, two or three groups independently selected from C_{1-6} -alkyl, fluoro, chloro, bromo, oxo, perfluoro- C_{1-3} -alkyl, aryl, arylcarbonyl, heteroaryl, C_{5-8} -cycloalkyl, and C_{5-8} -heterocyclyl.
- 6. Use according to any of claims 1 to 5, wherein \mathbb{R}^3 is selected from the group consisting of the group members: cyclohexyl- C_{1-6} -alkyl, piperidinyl- C_{1-6} -alkyl, C_{1-6} -alkyl, C_{1-5} -alkylcarbonyl-piperidinyl-

 C_{1-6} -alkyl, piperazinyl- C_{1-6} -alkyl, C_{1-6} -alkyl-piperazinyl- C_{1-6} -alkyl, C_{1-5} -alkylcarbonyl-piperazinyl- C_{1-6} -alkyl, which members may be optionally substituted by one, two or three groups independently selected from butyl, pentyl, hexyl, fluoro, oxo, phenyl, biphenyl, benzyl, pyridyl, pyrrolyl, benzoyl, thiophenyl, furyl, cyclopentyl, cyclopexyl, and piperidinyl.

Use according to any of claims 1 to 6, wherein \mathbb{R}^3 is 7. selected from the group consisting of (1-acetyl-piperidin-4-yl)-butyl, (1-diphenylacetyl-piperidin-4-yl)-butyl, [1-(3,3-diphenylpropionyl)-piperidin-4-yl]-butyl, (1-benzoyl-piperidin-4-yl)-ethyl, (1-benzoyl-piperidin-4-yl)-propyl, (1-benzoyl-piperidin-4-yl)-butyl, (1-benzoyl-piperidin-4-yl)-pentyl, (1-benzoyl-piperidin-4-yl)-hexyl, (1-benzylpiperidin-4-yl)-butyl, (1-diphenylmethyl-piperidin-4-yl)-methyl, (1-diphenylmethyl-piperidin-4-yl)-ethyl, (1-diphenylmethyl-piperidin-4-yl)-propyl, (1-diphenylmethyl-piperidin-4-yl)-butyl, (1-diphenylmethyl-piperidin-4-yl)-pentyl, (1-diphenylmethyl-piperidin-4-yl)-hexyl, (4-phenyl-piperidin-1-yl)-butyl, (4,4-diphenyl-piperidin-1-yl)-butyl, (1-benzoyl-2,6-dioxo-piperidin-4-yl)-butyl, (2,6-dioxo-3-phenyl-piperidin-1-yl)-butyl, (2,6-dioxo-4-phenyl-piperidin-1-yl)-butyl, (4-phenyl-piperazin-1-yl)-butyl, (4-phenyl-piperazin-1-yl)-pentyl, (4-phenyl-piperazin-1-yl)-hexyl, (4-diphenylacetyl-piperazin-1-yl)-butyl, (4-benzoylpiperazin-1-yl)-butyl, and (4-benzyl-2,6-dioxo-piperazin-1-yl)-butyl.

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8. Use according to any of claims 1 to 7, wherein the compound of Formula I is selected from the group consisting of

- N-[4-(1-acetyl-piperidin-4-yl)-butyl]-3-(pyridin-3-yl)-propionamide,
- N-[4-(1-acetyl-piperidin-4-yl)-butyl]-3-(pyridin-3-yl)-acrylamide,
- N-[4-(1-diphenylacetyl-piperidin-4-yl)-butyl]-3-(pyridin-3-yl)-acrylamide,
- N-[4-(1-diphenylacetyl-piperidin-4-yl)-butyl]-3-(pyridin-3-yl)-propionamide,
- $N-\{4-[1-(3,3-diphenylpropionyl)-piperidin-4-yl]-butyl\}-$
- 3-(pyridin-3-yl)-acrylamide,
- N-[3-(1-benzoyl-piperidin-4-yl)-propyl]-3-(pyridin-3-yl)-propionamide,
- N-[4-(1-benzoyl-piperidin-4-yl)-butyl]-3-(pyridin-3-yl)-propionamide,
- N-[6-(1-benzoyl-piperidin-4-yl)-hexyl]-3-(pyridin-3-yl)-propionamide,
- N-[2-(1-benzoyl-piperidin-4-yl)-ethyl]-3-(pyridin-3-yl)-acrylamide,
- N-[4-(1-benzoyl-piperidin-4-yl)-butyl]-3-(pyridin-3-yl)-acrylamide,
- N-[6-(1-benzoyl-piperidin-4-yl)-hexyl]-3-(pyridin-3-yl)-acrylamide,
- N-[4-(1-benzoyl-piperidin-4-yl)-butyl]-5-(pyridin-3-yl)-2,4-pentadienoic acid amide,
- N-[4-(4-benzoyl-piperidin-1-yl)-butyl]-3-(pyridin-3-yl)-acrylamide,
- N-[4-(4-benzoyl-piperidin-1-yl)-butyl]-3-(pyridin-3-yl)-propionamide,
- N-[4-(1-benzylpiperidin-4-yl)-butyl]-3-(pyridin-3-yl)-propionamide,
- N-[4-(1-diphenylmethyl-piperidin-4-yl)-butyl]-3-(2-fluoropyridin-3-yl)-propionamide,

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N-[4-(1-diphenylmethyl-piperidin-4-yl)-butyl]-3-(5-
fluoropyridin-3-yl)-propionamide,
N-[4-(1-diphenylmethyl-piperidin-4-yl)-butyl]-2-fluoro-3-
(pyridin-3-yl)-propionamide,
N-[4-(1-diphenylmethyl-piperidin-4-yl)-butyl]-2,2-difluoro-
3-(pyridin-3-yl)-propionamide,
N-[5-(1-diphenylmethyl-piperidin-4-yl)-pentyl]-3-(pyridin-
3-yl)-propionamide,
N-[6-(1-diphenylmethyl-piperidin-4-yl)-hexyl]-3-(pyridin-3-
yl)-propionamide,
N-[2-(1-diphenylmethyl-piperidin-4-yl)-ethyl]-5-(pyridin-3-
yl)-pentanoic acid amide,
N-[4-(1-diphenylmethyl-piperidin-4-yl)-butyl]-3-(pyridin-3-
yl)-propionamide,
N-[4-(1-diphenylmethyl-piperidin-4-yl)-butyl]-5-(pyridin-3-
yl)-pentanoic acid amide,
N-[2-(1-diphenylmethylpiperidin-4-yl)-ethyl]-5-(pyridin-3-
yl)-2,4-pentadienoic acid amide,
N-[4-(1-diphenylmethylpiperidin-4-yl)-butyl]-5-(pyridin-3-
yl)-2,4-pentadienoic acid amide,
N-[5-(1-diphenylmethylpiperidin-4-yl)-pentyl]-5-(pyridin-3-
yl)-2,4-pentadienoic acid amide,
N-[6-(1-diphenylmethylpiperidin-4-yl)-hexyl]-5-(pyridin-3-
yl)-2,4-pentadienoic acid amide,
N-[4-(4-phenyl-piperidin-1-yl)-butyl]-3-pyridin-3-yl-
 acrylamide,
 N-[4-(4,4-diphenyl-piperidin-1-yl)-butyl]-3-pyridin-3-yl-
 acrylamide,
 N-[4-(1-benzoyl-2,6-dioxo-piperidin-4-yl)-butyl]-3-
 (pyridin-3-yl)-acrylamide,
 N-[4-(2,6-dioxo-3-phenyl-piperidin-1-yl)-butyl]-3-pyridin-
 3-yl-acrylamide,
 N-[4-(2,6-dioxo-4-phenyl-piperidin-1-yl)-butyl]-3-pyridin-
 3-yl-acrylamide,
 N-[4-(4-benzoyl-piperazin-1-yl)-butyl]-3-(pyridin-3-yl)-
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acrylamide,

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N-[4-(4-benzoyl-piperazin-1-yl)-butyl]-3-(pyridin-3-yl)-propionamide,

- N-[4-(4-diphenylacetyl-piperazin-1-yl)-butyl]-3-pyridin-3-yl-acrylamide,
- N-[4-(4-diphenylmethyl-piperazin-1-yl)-butyl]-3-pyridin-3-yl-propionamide,
- N-[5-(4-diphenylmethyl-piperazin-1-yl)-pentyl]-3-pyridin-3-yl-acrylamide,
- N-[6-(4-diphenylmethyl-piperazin-1-yl)-hexyl]-3-pyridin-3-yl-acrylamide,
- N-[4-(4-diphenylmethyl-piperazin-1-yl)-butyl]-2-(pyridin-3-yl)-propionamide,
- N-[4-(4-diphenylmethyl-piperazin-1-yl)-butyl]-5-(pyridin-3-yl)-penta-2,4-dienoic acid amide, and
- N-[4-(4-benzyl-2,6-dioxo-piperazin-1-yl)-butyl]-3-pyridin-3-yl-acrylamide.
- 9. Use of a compound of Formula I or a pharmaceutically acceptable salt thereof, as defined according to any of claims 1 to 8, for the manufacture of a pharmaceutical composition for the treatment of a disease or medical condition in a mammal which disease or medical condition responds to inhibition or reduction of angiogenesis.
- 10. Use according to claim 9, wherein the disease or medical condition is selected from: rheumatoid arthritis; inflammatory disorder; macular degeneration, especially age-related macular degeneration; psoriasis; retinopathy, especially proliferative retinopathy and diabetic retinopathy; preneoplastic lesions; and hyperplasia, especially benign prostatic hyperplasia and venous neointimal hyperplasia.
- 11. Use of a compound of Formula I or a pharmaceutically acceptable salt thereof, as defined according to any of

claims 1 to 8, for the manufacture of a pharmaceutical composition for the treatment of a disease or medical condition in a mammal which disease or medical condition responds to inhibition or reduction of VEGF production.

- 12. Use of a compound of Formula I or a pharmaceutically acceptable salt thereof, as defined according to any of claims 1 to 8, in an in vitro diagnostic method.
- 13. Use according to claim 12, for the diagnosis of a disease or medical condition, which is selected from: rheumatoid arthritis; inflammatory disorder; psoriasis; retinopathy, especially proliferative retinopathy and diabetic retinopathy; preneoplastic lesions; and hyperplasia, especially benign prostatic hyperplasia and venous neointimal hyperplasia.
- A method of treating or preventing a disease or medical condition which disease or medical condition is selected from: rheumatoid arthritis; inflammatory disorder; macular degeneration, especially age-related macular degeneration; psoriasis; retinopathy, especially proliferative retinopathy and diabetic retinopathy; preneoplastic lesions; and hyperplasia, especially benign prostatic hyperplasia and venous neointimal hyperplasia; the method comprising administering a pharmaceutical composition to a human or animal in need thereof, wherein the pharmaceutical composition comprises one or more of the compounds of Formula I or a pharmaceutically acceptable salt thereof, as defined according to claim 1, optionally together with (a) pharmaceutically acceptable carrier(s), (a) toxicologically safe adjuvant(s), and/or in combination with other active ingredients.